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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/833,346	04/12/2001	Rodney Carlton Burnett	AUS920010160	3790

7590   07/08/2003

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EXAMINER
TO, BAOQUOC N

ART UNIT	PAPER NUMBER
2172	

DATE MAILED: 07/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

	Application No.	Applicant(s)
Office Action Summary	09/833,346	BURNETT, RODNEY CARLTON
	Examiner	**Art Unit**	
	Baoquoc N To	2172	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____ .

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-27* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☒ Claim(s) *1-27* is/are allowed.

6) ☐ Claim(s) _____ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

        1. ☐ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

        3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: .

DETAILED ACTION

1.   Claims 1-27 are presented for examination.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 1-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Thuraisngham et al. (US. Patent No. 5,355,474).

Regarding on claims 1, 14 and 27, Thuraisngham teaches a method for

constructing and caching a chain of file identifiers that represent a full path to a file

system resource comprising the steps of:

Retrieving a file identifier corresponding to the file system resource which is the

target of the access attempt and a file identifier chain for the directory of the target

system resource (col. 8, lines 35-40);

Searching for the effective security classification category and defined named

name for the target resource file identifier (col. 8, line 39);

Updating the security classification system, when said search finds a security

classification category for the target resource file identifier (col. 8, lines 40-43);

Determining whether operations for the target file system resource could affect

the file system name space (col. 21, lines 34-40); and

Thuraisngham does not explicitly teach terminating said method when operation does not affect the file system name space. However, Thuraisngham teaches, "once a response is received is received from P2, P1 will display the response to the user, and P1 will display the response to the user, and P1 will again prompt the user for another request. If the user chooses to enter a request at be restarted, at which point the user will again be prompted for a password and clearance" (col. 28, lines 48-54). This teaches the system restart the new operation with different users. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to include restart processed to allow the terminating operation and allowing the user to start on the different process with different security level. ·

Regarding on claim 2, Thuraisngham teaches searching step, the security classification category is set to an unclassified category and the defined name is set to the path used in the file system resource access attempt when said security classification category search does not find a security classification category (col. 8, lines 40-45).

Regarding on claims 3 and 15, Thuraisngham teaches the step of flushing the a file identifier chain cache when there is a determination that desired operations on the target file system resource could effect the file system name space (col. 11, lines 55-65).

Regarding on claim 4, Thuraisngham teaches before said file identifier (FID) retrieval step the step the step of processing a system resource defined name (DN) and security classification category into a mapping database which holds a FID to DN mapping (col. 6, lines 50-55).

Regarding on claim 5, Thuraisngham teaches database processing step comprises:

Providing the defined name and security classification category as inputs (col. 8, lines 40-45);

Obtaining a file identifier (FID) for the defined name (col. 6, lines 49-52); and

Adding the FID to DN mapping containing containing the security classification category to the mapping database (col. 6, lines 50-55).

Regarding to claim 6, Thuraisngham teaches searching step comprises:

Searching the FID to DN mapping database for the security classification category for the FID of the target resource (col. 8, lines 40-45); and

Returning the security classification category and defined for name fro the target FID, when a security classification category for the target FID was found during said search (col. 8, lines 30-35).

Regarding on claims 7 and 27, Thuraisngham teaches searching step comprises:

Search the FID to DN mapping database for the security classification category

for the FID of the target resource (col. 8, lines 40-45);

Retrieving a FID from the FID chain, when the search does not find a security

classification category for the FID of the target resource (col. 8, lines 30-35);

Search the FID to DN mapping database for the security classification category

for the FID of the FID chain (col. 8, lines 40-45); and

Returning the security classification category and defined name for the target

FID, when a security classification category for the target FID was found during said

search (col. 8, lines 30-35).

Regarding on claims 8 and 18, Thuraisngham teaches determining whether more

entries in the FID chain, when the search does not find a security classification category

for the FID used in the search (col. 8, lines 30-35);

Retrieving the next FID in the FID chain (col. 8, lines 30-35); and

Searching the FID to DN mapping database for the security classification

category for the currently FID of the FID chain (col. 8, lines 40-45).

Regarding on claim 9, Thuraisngham teaches the step of terminating the method when no security classification category is found for any FID in the FID chain (col. 8, lines 30-35).

Regarding on claims 10 and 16, Thuraisngham teaches flushing step comprises:

Retrieving the path name for the target resource, said path name being to a directory for the target resource (col. 8, lines 40-45);

Obtaining a vnode for the directory (col. 8, lines 40-45);

Generating a FID for the directory using the vnode (col. 8, lines 40-45);

Searching for FID chain matching directory FID (col. 8, lines 40-45); and

Removing FID chain from cache, when matching FID chain is found (col. 8, lines 30-35).

Regarding on claim 11, Thuraisngham teaches before said searching step the step of sorting the FID chains cache into hash list (col. 21, lines 26-40).

Regarding on claim 12, Thuraisngham teaches searching step comprises:

Retrieving the first FID chain in the FID chain list (col. 8, lines 40-45);

Comparing each FID in said first FID chain to said directory FID (col. 11, lines 41-65);

Determining whether there are more FID chains in the list, when said FID chain did not match said directory FID (col. 8, lines 40-45);

Retrieving the next FID chain the FID (col. 8, lines 40-45), and

Returning to said comparing step using newly retrieved FID chain (col. 11, lines 41-65).

Regarding on claim 13, Thuraisngham teaches searching step comprises:

Retrieving the first FID chain in the FID chain list (col. 8, lines 40-45);

Comparing each FID in said first FID chain to said directory FID (col. 11, lines 41-65);

Determining whether there are more FID chain in the list, when said FID chain did not match said directory FID (col. 8, lines 40-45); and

Terminating method when no FID chain is found (col. 28, lines 48-52).

Regarding on claim 15, Thuraisngham teaches instruction for flushing a file identifier chain cache when there is a determination that desired operations on the target file system resource could affect the file system name space (col. 11, lines 55-65).

Regarding on claim 19, Thuraisngham teaches before said searching instruction, instruction for sorting the FID chains in the FID chain cache into hash list (col. 21, lines 26-40).

Regarding on claim 21, Thuraisngham teaches file identifier retrieval step comprises:

Retrieving the path name of the file resource which is the target of the access attempt (col. 8, lines 40-45);

Obtaining a FID for target resource with said path name (col. 8, lines 40-45);

Determining whether obtained FID is in a FID chain (col. 8, lines 40-45); and

Returning the target FID and FID chain, when the target resource FID was found in the FID Chain Cache (col. 8, lines 30-45).

Regarding on claim 22, Thuraisngham teaches path name retrieval step, the step of obtaining vnodes for the target path and parent directory (col. 23, lines 26-30).

Regarding on claim 23, Thuraisngham teaches file identifier retrieval step comprises:

Retrieving the path name of the file resource which is the target of the access attempt (col. 8, lines 40-45);

Obtaining a FID for target resource with said path name (col. 8, lines 40-45);

Determining whether obtained FID is in a FID chain (col. 8, lines 40-45); and

Constructing a FID chain for the parent directory, when no FID chain in found (col. 8, lines 30-35).

Regarding on claim 24, Thuraisngham teaches FID chain construction

comprises:

Setting a temporary vnode (temporary table) to equal the vnode is the root

directory (col. 27, lines 31-33);

Determining whether the temporary vnode is the root directory (col. 30, lines 15-

25);

Inserting FID chain into FID chain cache with the first FID in the chain serving as

the entry search key, when temporary vnode is the root directory (col. 29, lines 54-67)

Regarding on claim 25, Thuraisngham teaches FID chain construction

comprises:

Setting a temporary vnode to equal the vnode for the parent of the target

resource (col. 27, lines 31-33);

Determining whether the temporary vnode is the root directory (col. 38, lines 35-

40);

Retrieving a vnode for the next parent in the directory path and determining

whether that parent is the root directory (col. 8, lines 40-45);

Repeating said retrieving step until parent is the root of the directory (col. 28,

lines 48-52).

Regarding on claim 26, Thuraisngham teaches the step of inserting a completed FID chain into the FID chain cache when the parent is the root directory (col. 38, lines 35-40).

Regarding on claim 28, Thuraisngham teaches method is implemented through the use of externally stored attributes, said attributes being security rules for system resource and further comprising the step of attaching security rules of a directory to all files in said directory (col. 27, lines 35-40).

Conclusion

3.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Baoquoc N. To whose telephone number is (703) 305-1949 or via e-mail BaoquocN.To@uspto.gov. The examiner can normally be reached on Monday-Friday: 8:00 AM – 4:30 PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Y. Vu can be reached at (703) 305-4393.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231.

The fax numbers for the organization where this application or proceeding is assigned are as follow:

- (703) 746-7238   [After Final Communication}]
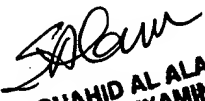
- (703) 746-7239   [Official Communication]

- (703) 746-7240   [Non-Official Communication]

Hand-delivered responses should be brought to:

Crystal Park II

2121 Crystal Drive

Arlington, VA 22202

Fourth Floor (Receptionist).

Baoquoc N. To

June 20, 2003

SHAHID AL ALAM
PRIMARY PATENT EXAMINER